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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,311	04/21/2004	Ching-Hsi Wu	OP-093000197	4221
7590	03/10/2006		EXAMINER PAPE, ZACHARY	
Yi-Wen Tseng 4331 Stevens Battle Lane Fairfax, VA 22033			ART UNIT 2835	PAPER NUMBER

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/828,311	Applicant(s) WU, CHING-HSI	
	Examiner Zachary M. Pape	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The following detailed action is in response to the correspondence filed 12/1/2005.

With respect to applicants admission that the foreign priority application number 287946/2003 filed on Aug 6, 2003 was erroneously claimed as foreign priority, the examiner notes that the examiner personally is unable to handle the situation. The applicants are advised to contact the office of petitions at 571-272-3283 since the applicants may need to petition to have the foreign priority removed.

Claim Objections

Claims 4 and 5 are objected to because of the following informalities:

Claims 4 and 5 recite that wind travels from the right/left side through the heat dissipating device and taking heat from the CPU to flow outside from the left/right side which is a bit open ended. The applicant's drawings show air flowing from the right to the left which falls under the scope of the above mentioned limitation, however the limitation could also be construed as meaning from the right to the right which doesn't conform to the given drawings or anywhere within the scope of the present invention. As such the examiner suggests that the applicant amend the recitation to read "from the right side to the left side or from the left side to the right side".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the present invention, claim 1 has been amended to recite, "a first heat dissipating fin module and a second heat dissipating fin module mounted to each" which is indefinite since "mounted to each" can be interpreted as either meaning that the heat dissipating fin modules are mounted to each the casing and the mother board, or that they are mounted to each other. If in fact the applicants mean to say that the heat dissipating modules are attached to each the casing and the mother board respectively the examiner respectfully notes that the drawings and hence the specification provide no support for such a limitation and thus is considered new matter. The examiner believes that the applicants intended to claim that the heat dissipating modules are mounted to each other as illustrated and hence has set forth a rejection based on such merits below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over DiStefano et al. (US 6,903,930) in view of Sasaki (US 6,637,505).

With respect to claim 1, as best can be understood by the examiner, DiStefano et al. teaches a heat dissipating structure for a computer host, comprising: a mother board (400) having a CPU (Column 3, Lines 30-34), plural electrical components mounted thereon (455, 445, etc.); a first heat dissipating fin module (100) and a second heat dissipating fin module (110/120) mounted to each to form a heat dissipating device mounted on the CPU for dissipating heat. DiStefano et al. fails to teach a casing having a front side, a back side, a left side, and a right side wherein the left side and the right side respectively have a left side board and a right side board for opening thereon plural ventilative openings corresponding to each other, and the plural ventilative openings on respective left side board and right side board are opened at positions facing the heat dissipating device. Sasaki teaches a casing (1) having a front side, a back side, a left side, and a right side wherein the left side and the right side respectively have a left side board and a right side board for opening thereon plural ventilative openings (2, 9) corresponding to each other, and the plural ventilative openings on respective left side board and right side board are opened at positions facing a heat dissipating device (6 – as illustrated in Fig 1). It would have been obvious to one of ordinary skill in the cooling art at the time the invention was made to combine the casing of Sasaki with the heat-dissipating device of DiStefano et al. to provide a means of protecting (housing) the heat dissipating device, motherboard, CPU, and other plural electrical components from

external debris (dust, liquid moisture, etc.). Protecting the components from debris will increase the life of the components and reduce malfunctions.

Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiStefano et al. in view of Sasaki, and further in view of Chen et al. (US 6,826,047).

With respect to claim 3, as best can be understood by the examiner, DiStefano et al. further teaches the limitations of claim 1 above, and further teaches that the two outside surfaces of the first heat dissipating fin module and the second heat dissipating fin module have a first heat dissipating fan (415) and a second heat dissipating fan (410). DiStefano et al. fails to teach that the fans are mounted to their respective fin module. Chen et al. teaches the conventionality of mounting a fan (30) directly to a heat dissipating device (As illustrated in Fig 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Chen et al. with that of DiStefano et al. to provide more heat dissipation to the system (Chen; Column 2, Lines 20-23). With respect to the newly added limitation that the heat dissipating fan is mounted thereon facing toward the ventilative openings, Sasaki clearly teaches fans facing toward ventilative openings (As illustrated in Figs 1 and 2).

With respect to claim 4, DiStefano et al. further teaches that the first heat dissipating fan and the second heat dissipating fan are rotated at the same direction (As illustrated in Fig 4). With respect to the particulars of the airflow, Sasaki further teaches air (4) moving from a right side of a casing through the casing and over the heat dissipating device, and exiting through a left side of the chassis.

With respect to claim 5, DiStefano et al. teaches a heat dissipating structure for a computer host comprising: a mother board (400) having a CPU (Column 3, Lines 30-34), plural electrical components mounted thereon (455, 445, etc.); a heat dissipating device (200) mounted on the CPI for dissipating heat generated therefrom. DiStefano et al. fails to teach a casing, the particulars of the ventilative openings on the casing, and a dissipating fan (405) mounted on the heat dissipating device. Sasaki teaches the casing with front, back, left and right sides, and further teaches the particulars including left and right side boards with openings (2, 9) facing a heat dissipating device (6), wherein a fan (2) faces toward the ventilative openings to draw wind from the right side to the left side (As illustrated in Fig 2). It would have been obvious to one of ordinary skill in the cooling art at the time the invention was made to combine the casing of Sasaki with the heat-dissipating device of DiStefano et al. to provide a means of protecting (housing) the heat dissipating device, motherboard, CPU, and other plural electrical components from external debris (dust, liquid moisture, etc.). Protecting the components from debris will increase the life of the components and reduce malfunctions. With respect to the limitation that the fan is mounted on the heat dissipating device, Chen et al. teaches the conventionality of mounting a fan (30) directly to a heat dissipating device (As illustrated in Fig 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Chen et al. with that of DiStefano et al. to provide more heat dissipation to the system (Chen; Column 2, Lines 20-23).

With respect to claim 6, DiStefano et al. further teaches that the heat dissipating device comprises a first heat dissipating fin module (200) and a second heat dissipating fin module (110/120) mounted to each other to mount on the CPU (As illustrate Fig 4).

With respect to claim 7, DiStefano et al. teaches a second fan (410) for cooling the second heat dissipating fin module. With respect to the limitation that the fan is mounted to the heat dissipating fin module, Chen et al. teaches mounting the fan directly to a heat dissipating module as detailed in claim 5 above.

Response to Arguments

3. Applicant's arguments filed 12/1/2005 have been fully considered but they are not persuasive.

With respect to applicants remarks that DiStefano et al. fails to teach that the first and second heat exchangers of DiStefano et al. do not mount directly to each other, the examiner respectfully disagrees. As described in claim 1 above, DiStefano et al. clearly teaches a first heat dissipating fin module (200/100) and a second heat dissipating fin module (110) directly attached to each other (via 130) as illustrated in Fig 1.

With respect to applicants remarks that "neither DiStefano nor Sasaki discloses a first and second heat dissipating fan mounted on the first and second fin modules facing towards the ventilative openings 51 and 41 respectively, and the first and a second heat dissipating fan heat dissipating fan 33 and 34 rotated to draw wind outside the case 1 from the right side/left side 4 flowing through the heat dissipating device 3 and taking heat from the CPI 21 to flow outside from the left side/right side as in applicants

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amended claims 3 and 4", in view of amended claims 1, 3 and 4, and newly added claims 5-7 which contain the limitations in question, the examiner has issued a new rejection using the DiStefano reference to teach the particulars of the cooling elements, the casing of Sasaki to teach the particulars of the casing, openings and their orientations, and the mounting methods of Chen et al. to teach the conventionality of mounting a fan directly to a heat dissipating device. Such teachings and combinations clearly overcome the applicants present claimed subject matter.

With respect to applicants remarks that the combination of DiStefano and Sasaki is non-obvious, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the examiner respectfully notes that motivation has been included in the obviousness rejection and the examiner asserts that the motivation supplied by the examiner to make **both** the combination of DiStefano et al. and Sasaki, as well as DiStefano et al. and Chen et al. are both legitimate and provide sufficient basis for combining each. For example, the motivation supplied by the examiner for DiStefano et al. in view of Sasaki was that the casing of Sasaki would provide protection to the components of DiStefano to prevent them from collecting dust, debris, and other ailments which could prohibit effective use of the device. Similarly, the examiners motivation to combine the DiStefano et al. and

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Chen et al. references was cited directly from the Chen et al. reference which clearly teaches that the invention of Chen et al. will provide more heat dissipation to the system (Chen; Column 2, Lines 20-23).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

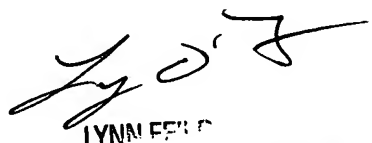
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZMP


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